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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LALITHA AGNIHOTRI and NEVENKA DIMITROVA

Appeal 2007-2465
Application 09/747,107
Technology Center 2600

Decided: January 31, 2008

Before MAHSHID D. SAADAT, ROBERT E. NAPPI, and JOHN A.
JEFFERY, *Administrative Patent Judges*.

SAADAT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Final Rejection of claims 1-38, which are all of the claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

Appellants' claimed invention relates to providing multimedia summary of a video program using transcript information and video segments. A multimedia summary generator obtains and combines transcript portions of the video segments corresponding to the video program to create the summary. (Specification 4-5).

Claims 1 and 3 are illustrative of the invention and read as follows:

1. For use in a video display system capable of displaying a video program, a system for creating a multimedia summary of said video program, said system comprising:

a multimedia summary generator capable of identifying a domain of said video program and obtaining a transcript of the text of said video program and capable of obtaining audio-video segments of said video program,

wherein said multimedia summary generator is capable of combining portions of said transcript and portions of said audio-video segments selected according to said domain of said video program to create a multimedia summary of said video program.

3. The system as claimed in Claim 2 wherein said multimedia summary generator comprises:

a controller capable of executing computer software instructions contained within a memory coupled to said controller to create said multimedia summary of said video program by

determining a set of topic cues associated with said domain of said video program,

identifying at least one topic cue from said set of topic cues in said transcript of said video program,

selecting at least one audio-visual segment from said video program associated with said at least one topic cue, and

adding said topic cue and said audio-visual segment to said multimedia summary.

The Examiner relies on the following prior art references to show unpatentability:

| | | |
|--------|-----------------|--|
| Hoarty | US 5,093,718 | Mar. 3, 1992 |
| Ahmad | US 6,263,507 B1 | Jul. 17, 2001 (filed Dec. 5, 1996) |
| Liou | US 6,580,437 B1 | Jun. 17, 2003 (filed Jun. 26, 2000) |

Satoh, *Name It: Naming and Detecting Faces in News Videos*, IEEE article 1070-986X/99, 22-35 (1999).

Claims 1-3, 7-9, 13-15, 19-21, 25-27, 29-31, and 34 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Ahmad.

Claims 4-6, 10-12, 16-18, 22-24, 28, 32, 33, and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahmad and Liou.

Claims 36-38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahmad, Saitoh, and Hoarty.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Brief and Answer for the respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but did not make

in the Brief have not been considered and are deemed waived. See 37 C.F.R. § 41.37(c)(1)(vii).

We affirm.

ISSUES

Under 35 U.S.C. § 102(e), does Ahmad have a disclosure which anticipates the invention set forth in claims 1-3, 7-9, 13-15, 19-21, 25-27, 29-31, and 34?

Under 35 U.S.C. § 103(a), does the combination of Ahmad with Liou or with Saitoh and Hoarty have a disclosure which anticipates the invention set forth in claims 4-6, 10-12, 16-18, 22-24, 28, 32, 33, and 35-38?

FINDINGS OF FACT

The following findings of facts (FF) are relevant to the issues at hand:

1. Ahmad provides for displaying by electronic devices (e.g., a television, a computer display monitor) a body of information which is reviewed quickly and in a flexible manner. Typically, the body of information will be represented by a set of audio data, video data, text data or some combination of the three by generating an audiovisual display of one or more segments of information, as well as a display (a text display, an audio display, a video display, or an audiovisual display), for each of the

segments, of one or more related segments of information. (Col. 2, l. 60 through col. 3, l. 3).

2. Ahmad discloses that each of a set of television news programs can be skimmed to quickly ascertain the subject matter content of the news stories contained therein. Additionally, a particular category (e.g., subject matter category) can be specified and news stories having content that fits within the specified subject matter category can be immediately identified and either displayed or identified as pertinent to the subject matter category and available for display. (Col. 3, ll. 22-31).

3. As depicted in Figures 2A and 2B, Ahmad discloses using the primary information playback control region 201 of the GUI 200 to control the manner in which the primary information is displayed on the primary display device 102. (Col. 15, ll. 8-11).

4. Ahmad further shows in Figure 2B topic “buttons” 215, control “buttons” 216 and a speed control 217 included in the primary information playback control region 211 of the GUI 210. The topic buttons 215 enable the user to select a subject matter category to be displayed one after the other by the primary display device 102 or cause a list of news stories pertaining to that subject matter category to appear from which list the user could select one or more news stories for viewing. (Col. 15, ll. 18-42).

5. Ahmad further discloses partitioning of text data using markers that identify the breaks between segments of the information. For example, closed caption text data that can accompany the audio and video data of a set of audiovisual data often includes characters that indicate breaks in the text

data (e.g., markers that designate story and paragraph boundaries, the beginning and end of advertisements, and changes in speaker) and, in particular, characters that explicitly designate breaks between segments (e.g., markers that identify story boundaries). (Col. 23, ll. 29-49).

6. Liou relates to a system for organizing digital videos to archive and accessing them using closed caption text data (Abstract).

7. Liou used the closed caption data to construct an organized tree using the markers which are indicative of segments defined by changes in the subject or starting a new story. (Col. 6, ll. 35-52).

8. Liou further teaches that the organized tree includes nodes corresponding to the stories and attached to the root nodes. This arrangement allows for moving the nodes and playing the corresponding video. (Col. 7, ll. 33-41).

PRINCIPLES OF LAW

Anticipation

A rejection for anticipation requires that the four corners of a single prior art document describe every element of the claimed invention, either expressly or inherently, such that a person of ordinary skill in the art could practice the invention without undue experimentation. *See Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999); *In re Paulsen*, 30 F.3d 1475, 1478-79 (Fed. Cir. 1994).

Obviousness

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. *See In re Kahn*, 441 F.3d 977, 987-988 (Fed. Cir. 2006). “Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007).

ANALYSIS

35 U.S.C. § 102(e) Rejection of Claims

With respect to the rejection of claims 1-3, 7-9, 13-15, 19-21, 25-27, 29-31, and 34 as anticipated by the Ahmad reference, Appellants provide arguments for every claim to rebut the Examiner’s position. However, similar arguments are presented for independent claims 1, 7, 13, 19, 25, and 34 while identical points in support of patentability of claims 2, 3, 8, 9, 14, 15, 20, 21, 26, 27, and 29-31 are also presented. We therefore, select claims 1-3 as the representative claims to address in our analysis.

Claim 1

The Examiner reads the various claimed limitations on the disclosure of Ahmad, specifically the embodiment shown in Figure 2B of the reference (Ans. 3-4). Appellants’ arguments in response assert that Ahmad only shows a Graphical User Interface (GUI) related to a news browser which allows a user to choose between different topics in a news browser (Br. 8).

Appellants further argue that, even if a domain is identified by selecting topic icons in Ahmad, it is done by the user, not by the multimedia summary generator as required by independent claim 1.

After reviewing the disclosure of Ahmad in light of the arguments of record, however, we are in general agreement with the Examiner's position as stated in the Answer. Our interpretation of the disclosure of Ahmad coincides with that of the Examiner, i.e., when the user in Ahmad selects one of the topic icons or subject matter categories, the system provides the user with summaries of the news programs that satisfy the requested information related to the selected icon (Ans. Paragraph linking pages 11 and 12).

In particular, we observe that the Examiner has reasonably equated the "subject matter categories" selected by topic buttons 215 of Ahmad (FF 4) to the claimed "domain" based on Appellants' definition of "domain" as "category" (Specification 19:15-20). Ahmad in fact combines portions from a body of audio-visual information based on the subject matter category selected by the user (FF 1-3) to be presented to the user for quick review.

We also find to be without merit Appellants' contention (Br. 9) that it is the user who identifies a domain. In fact, the user in Ahmad merely suggests the category by selecting one of the topic buttons, while it is the system that identifies the category of the video program based on the selected category for obtaining and combining the portions of the transcript and audio-video segment to create a multimedia summary (FF 1).

In view of the above discussion, since all of the claimed limitations are present in the disclosure of Ahmad, the Examiner's 35 U.S.C. § 102(e)

rejection of independent claims 1, 7, 13, 19, 25¹, and 34, as well as claims 26, 27, and 29-31 which are argued as falling with claim 25 (Br. 23-25), is sustained.²

Claims 2 and 3

Appellants point out that claim 2 further requires selection of the segments related to a topic of the program wherein the topic is selected according to the domain of the video program (Br. 9). Regarding claim 3,

¹ Claim 25 which reads as follows:

25. For use in a video display system capable of displaying a video program, a multimedia summary of a video program comprising at least one audio-visual segment of said video program that relates to an identified domain of said video program.

is directed merely to a multimedia summary of video program which defines non-functional descriptive material. Not only does the content of this summary not fall within any of the categories of statutory subject matter, it also can encompass every video program summary. However, in view of our decision affirming the rejection of claims 25-33, we decline to enter a new ground of rejection under 35 U.S.C. § 101.

² We also observe that the repeated use of the word “capable” in the preamble and the body of these claims makes them subject to rejections under the second paragraph of 35 U.S.C. § 112. We recognize that there is nothing inherently wrong with defining some part of an invention in functional terms (i.e., in terms of what it *does* rather than what it *is*). See MPEP § 2173.05(g). But here, there is no positively recited step required to be performed by the “system” of these claims since they recite functions that the system merely is capable of performing, but does not necessarily perform. The noted recitations are not definite and the scope of the claims is not reasonably determinable. Even though these issues have not been raised in this appeal, the applied prior art is thus more clearly applicable to claims 1, 7, 13, 19, 25, and 34 than is apparent.

Appellants assert that the claim requires determining a set of topic cues associated with the domain of the video program, selecting an audio-visual segment associated with one of the topic cues and adding the topic cue and the audio-video segment to the multimedia summary (*id.*). Appellants further argue that the markers in Ahmad merely provide boundaries for sections of the text while the claimed “topic cues” provide information on the content of the audio-video segments (Br. 10). Appellants present the same arguments with respect to the rejection of claims 8, 9, 14, 15, 20, and 21 (Br. 13-23).

The Examiner reads the claimed topic on various news stories associated with each topic button 215 which are selected according to the button or the domain of said video program (Ans. 4). With respect to claim 3, the Examiner takes the position that the markers disclosed by Ahmad are the same as the recited topic cues which are defined in page 20 of the Specification as indicative of transition points in a video program (Ans. 12).

Upon a review of the teachings of Ahmad, we agree with the Examiner that selection of one or more news stories from a list of news stories presented to the user upon selection of a topic button 215 in Ahmad (FF 5) is reasonably the same as the recited features in claim 2. Regarding claim 3, we agree with the Examiner to the extent that the markers in Ahmad do represent some kind of topic cues such as designating the beginning and the end of advertisement, change in speaker, and breaks between segments, which all provide information on the content of an audio-video segment. We also find that Ahmad provides the markers merely in the context of close

caption text data that can accompany the audio and video data (FF 5), but does not apply the markers in selection of the audio-visual segments that are added to the multimedia summary.

However, upon a further review of Ahmad, we observe that following the disclosure related to the markers in the closed caption text data, Ahmad provides for partitioning the audio and the video data (col. 23, ll. 50-67) using voice recognition (col. 24, ll. 10-29), known words (col. 24, ll. 30-41), music recognition (col. 24, ll. 42-57, and pause recognition (col. 24, ll. 58-65). Ahmad also provides for video data partitioning such as scene break recognition (col. 24, l. 66 through col. 25, l. 54). More importantly, Ahmad includes markers, similar to those associated with the closed caption text data, in either audio or video data which directly identifies segments or breaks within the audio and video data (col. 25, ll. 55-60).

Based on the teachings of Ahmad discussed above and the arguments of record made by Appellants and the Examiner, we find that the claimed “topic” and “topic cues” read on the stories associated with each button and the markers used for identifying the changes in the content and partitioning the audio and video data. Therefore, the Examiner’s 35 U.S.C. § 102(e) rejection of claims 2 and 3, as well as claims 8, 9, 14, 15, 20, and 21 which are of the same scope, is sustained.

35 U.S.C. § 103(a) Rejection of Claims

Regarding the rejection of claims 4-6, 10-12, 16-18, 22-24, 28, 32, 33, and 35 over Ahmad and Liou, we observe that Appellants repeat the same arguments for each set of claims 10-12, 16-18, and 22-24 (Br. 28-31).

Appellants further assert patentability of claims 28, 32, 33, and 35 for the reasons already argued with respect to their base claims 25 and 34. In particular, Appellants address the rejection of claims 4-6 by designating claim 4 as representative and repeating the same points raised for their base claim 1 and further stating that Liou is a domain-independent video organization method that does not identify a domain of a video program (Br. 26).

A review of Liou reveals that an organizational tree is constructed from the processed closed caption data to produce a video table of content in a hierarchical order (FF 6-8). As depicted in Figures 6 and 7 of Liou, the tree includes nodes corresponding to the stories that are attached to the root node (FF 8). We find the Examiner's characterization of the organization tree in Liou as the claimed topic and subtopic organization wherein the partitioning of audio and video data at each level is taught by Ahmad, as discussed above with respect to claim 3. We also disagree with Appellants that the fact that identifying a domain is not mentioned in Liou precludes its combination with Ahmad. In that regard, one of ordinary skill in the art would have found that the root level disclosed in Liou may be expanded to correspond to each category taught in Ahmad wherein the organized tree of Liou allows archiving video data within that category or domain which can be searched at each node level.

In view of the teachings of Ahmad and Liou discussed above and the arguments made by Appellants and the Examiner, we find no error in the Examiner's position with respect to the rejection of claims 4-6. Thus, we

sustain the Examiner's 35 U.S.C. § 103(a) rejection of claims 4-6, 10-12, 16-18, 22-24, 28, 32, 33, and 35 over Ahmad and Liou.

With respect to the rejection of claims 36-38, Appellants do not argue the rejection with any specificity and merely provide the same arguments against Ahmad that were presented for their base claim 13 (Br. 33-36). In view of our discussion of Ahmad in rejection of claims 1 and 13 above, we also sustain the Examiner's 35 U.S.C. § 103(a) rejection of claims 36-38 over Ahmad, Satoh, and Hoarty.

CONCLUSION

In summary, we have sustained the Examiner's rejections of all the claims on appeal. Therefore, the decision of the Examiner rejecting claims 1-3, 7-9, 13-15, 19-21, 25-27, 29-31, and 34 under 35 U.S.C. § 102(e) and claims 4-6, 10-12, 16-18, 22-24, 28, 32, 33, and 35-38 under 35 U.S.C. § 103(a) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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